

CLAIMS

1. A vacuum pumping arrangement comprising a turbomolecular
5 pumping mechanism and a molecular drag pumping mechanism connected in series, a rotor of the molecular drag pumping mechanism being supported by the rotor blades of the turbomolecular pumping mechanism.
2. A vacuum pumping arrangement as claimed in claim 1, wherein the
10 rotor blades are provided with an annular ring to which said rotor of the molecular drag pumping mechanism is fixed.
3. A vacuum pumping arrangement as claimed in claim 2, wherein the
15 ~~turbomolecular pumping mechanism has a plurality of stages and the rotor~~ blades of at least the last stage are provided with said annular ring.
4. A vacuum pumping arrangement as claimed in any one of the
preceding claims, wherein the rotor of the molecular drag pumping
mechanism is supported approximately half way along the radial length of the
20 rotor blades of the turbomolecular pumping mechanism.

5. A vacuum pumping arrangement as claimed in claim 1, wherein the molecular drag pumping mechanism has a plurality of rotors supported by said rotor blades of said turbomolecular pumping mechanism.
- 5 6. A vacuum pumping arrangement as claimed in claim 5, wherein the plurality of rotor blades are fixed to respective radially spaced annular rings provided with the rotor blades of the turbomolecular pumping mechanism.
7. A vacuum pumping arrangement as claimed in any one of the
10 preceding claims, wherein the or each rotor of the molecular drag pumping mechanism has associated therewith two parallel pumping paths comprising a pumping path radially inwardly of the or each rotor and a pumping path radially outwardly of the or each rotor.
- 15 8. A vacuum pumping arrangement as claimed in any one of the preceding claims, wherein the molecular drag pumping mechanism is of a holweck type.
9. A vacuum pumping arrangement as claimed in any one of the
20 preceding claims, further comprising a second molecular drag pumping mechanism the rotor of which is supported by the rotor of a regenerative pumping exhausting mechanism.

10. A vacuum pumping arrangement as claimed in any one of the preceding claims, wherein the rotor of the or each molecular drag pumping mechanism is made from carbon fibre composite material.

5 11. A vacuum pumping arrangement as claimed in any one of the preceding claims, wherein the rotor blades of the turbomolecular pumping mechanism are made from aluminium.

12. A vacuum pumping arrangement as claimed in claim 2, wherein the
10 annular ring is made from aluminium.